

Applicants : Daniel J. Capon, Jeannette M. Whitcomb and
Neil T. Parkin
Serial No. : CPA of 09/126,559
Filed : July 30, 1998
Page 5

REMARKS

The amendments to claims 1, 37 and 55-58 relative to the corresponding previously pending claims are shown in **Exhibit A**, attached hereto.

Support for the amendments can be found throughout the specification, including, inter alia, as follows:

page 16, lines 21-33, for "viral replication", "resistance";

page 40, lines 13-30; page 42, lines 12-17; page 43, lines 24-32; and page 44, lines 1-19, for "a change in expression of the indicator gene in (c), as compared to (d), relates to susceptibility of HCV replication to the anti-HCV drug";

page 56, lines 25-35 to page 57, lines 1-24, and page 58, lines 1-4, for "resistance" or "susceptibility" "to an anti-HCV drug" and "a change in expression of the indicator gene in (c), as compared to (d), relates to susceptibility of HCV replication to the anti-HCV drug".

Accordingly, no new matter is present in the claims as amended herein, and entry of this Preliminary Amendment is respectfully requested.

Accordingly, claims 1, 4, 8, 37, 40 and 55-58 as amended herein are pending in this application.

Applicants : Daniel J. Capon, Jeannette M. Whitcomb and
Neil T. Parkin
Serial No. : CPA of 09/126,559
Filed : July 30, 1998
Page 6

If a telephone interview would be of assistance in advancing prosecution of the subject application, applicants' undersigned attorney invites the Examiner to telephone at the number provided below.

No fee is deemed necessary in connection with the filing of this Amendment. However, if any other fee is required, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 03-3125.

Respectfully submitted,



John E. White
Registration No. 28,678
Attorneys for Applicants
Cooper & Dunham LLP
1185 Avenue of the Americas
New York, New York 10036
(212) 278-0400

EXHIBIT A

Applicants : Daniel J. Capon, Jeannette M. Whitcomb and
Neil T. Parkin
Serial No. : CPA of 09/126,559
Filed : July 30, 1998

1. (Amended) A method for determining susceptibility of hepatitis C viral replication to for an anti-hepatitis C virus (HCV) HCV anti-viral drug comprising:
- (a) introducing a resistance test vector comprising a patient-derived segment which comprises a hepatitis C virus (HCV) gene and an indicator gene into a host cell;
 - (b) culturing the host cell from (a);
 - (c) measuring expression of the indicator gene in a target host cell, wherein the expression of the indicator gene is dependent upon the patient-derived segment; and
 - (d) comparing the expression of the indicator gene from (c) with the expression of the indicator gene measured when steps (a)-(c) are carried out in the absence of the ~~HCV anti-viral~~ anti-HCV drug,
- wherein a test concentration of the ~~HCV anti-viral~~ anti-HCV drug is present at steps (a)-(c); at steps (b)-(c); or at step (c) and a change in expression of the indicator gene in (c), as compared to (d), relates to susceptibility of HCV replication to the anti-HCV drug.

Applicants : Daniel J. Capon, Jeannette M. Whitcomb and
Neil T. Parkin
Serial No. : CPA of 09/126,559
Filed : July 30, 1998

37. (Amended) A method for determining susceptibility of hepatitis C viral replication to for an anti-hepatitis C virus (HCV) HCV anti-viral drug comprising:

- (a) introducing a resistance test vector comprising a patient-derived segment which comprises a hepatitis C virus (HCV) gene and a nonfunctional indicator gene into a host cell;
- (b) culturing the host cell from (a);
- (c) measuring expression of the indicator gene in a target host cell, wherein the expression of the indicator gene is dependent upon the patient-derived segment; and
- (d) comparing the expression of the indicator gene from (c) with the expression of the indicator gene measured when steps (a)-(c) are carried out in the absence of the HCV anti-viral anti-HCV drug,

wherein a test concentration of the HCV anti-viral anti-HCV drug is present at steps (a)-(c); at steps (b)-(c); or at step (c) and a change in expression of the indicator gene in (c), as compared to (d), relates to susceptibility of HCV replication to the anti-HCV drug.

55. (Amended) A method for determining HCV anti-viral resistance of hepatitis C virus (HCV) to an anti-HCV drug resistance in a patient comprising:

- (a) developing a standard curve of drug susceptibility for an the HCV anti-viral anti-HCV drug;
- (b) determining HCV anti-viral drug susceptibility of HCV replication to such anti-HCV drug in the patient according to the method of claim 1; and
- (c) comparing the HCV anti-viral anti-HCV drug susceptibility

Applicants : Daniel J. Capon, Jeannette M. Whitcomb and
Neil T. Parkin
Serial No. : CPA of 09/126,559
Filed : July 30, 1998

in from step (b) with the standard curve determined in from step (a), wherein a decrease in ~~HCV anti-viral~~ susceptibility of HCV replication to the anti-HCV drug indicates development of ~~HCV anti-viral~~ drug resistance to the anti-HCV drug in the patient.

56. (Amended) A method for determining ~~HCV anti-viral~~ resistance of hepatitis C virus (HCV) to an anti-HCV drug resistance in a patient comprising:

- (a) developing a standard curve of drug susceptibility for a such ~~HCV anti-viral~~ anti-HCV drug;
- (b) determining ~~HCV anti-viral~~ drug susceptibility of HCV replication to such anti-HCV drug in the patient according to the method of claim 37; and
- (c) comparing the ~~HCV anti-viral~~ anti-HCV drug susceptibility in from step (b) with the standard curve determined in from step (a), wherein a decrease in ~~HCV anti-viral~~ susceptibility of HCV replication to the anti-HCV drug indicates development of ~~HCV anti-viral~~ drug resistance to the anti-HCV drug in the patient.

57. (Amended) A method for determining ~~HCV anti-viral~~ resistance of hepatitis C virus (HCV) to an anti-HCV drug resistance in a patient comprising:

- (a) determining ~~HCV anti-viral~~ drug susceptibility of hepatitis C viral replication in the patient to the anti-HCV drug at a first time according to the method of claim 1, wherein the patient-derived segment is obtained from the patient at about said time;
- (b) determining ~~HCV anti-viral~~ drug susceptibility of hepatitis C viral replication of the same patient to the anti-HCV drug at a later time; and

Applicants : Daniel J. Capon, Jeannette M. Whitcomb and
Neil T. Parkin
Serial No. : CPA of 09/126,559
Filed : July 30, 1998

- (c) comparing the ~~HCV anti-viral~~ anti-HCV drug susceptibilities ~~determined in from~~ steps (a) and (b), wherein a decrease in ~~anti-viral~~ drug susceptibility of HCV replication to the anti-HCV drug at the later time as compared to the first time indicates development or progression of ~~HCV anti-viral~~ drug resistance to the anti-HCV drug in the patient.

58. (Amended) A method for determining ~~HCV anti-viral~~ resistance of hepatitis C virus (HCV) to an anti-HCV drug resistance in a patient comprising:

- (a) determining ~~HCV anti-viral~~ drug susceptibility of hepatitis C viral replication in the patient to the anti-HCV drug at a first time according to the method of claim 37, wherein the patient-derived segment is obtained from the patient at about said time;
- (b) determining ~~HCV anti-viral~~ drug susceptibility of hepatitis C viral replication of the same patient to the anti-HCV drug at a later time; and
- (c) comparing the ~~HCV anti-viral~~ anti-HCV drug susceptibilities ~~determined in from~~ steps (a) and (b), wherein a decrease in ~~HCV anti-viral~~ drug susceptibility of HCV replication to the anti-HCV drug at the later time as compared to the first time indicates development or progression of ~~HCV anti-viral~~ drug resistance to the anti-HCV drug in the patient.